

IN THE CLAIMS:

Please amend the claims to read as follows.

Claims 1-7. (Canceled)

8. (Original) A genetically engineered retroviral vector comprising:

- a) a marker gene expressed by a first vector encoded promoter; and
- b) a 3' gene trap cassette, comprising in operable combination:
 - 1) a second vector encoded promoter;
 - 2) an exon sequence located 3' from and expressed by said second promoter, said exon not encoding an activity conferring antibiotic resistance;
 - 3) a splice donor sequence defining the 3' region of the exon; and

wherein said vector does not encode a sequence that mediates the polyadenylation of an mRNA transcript encoded by said exon sequence.

9. (Currently amended) An infectious retrovirus having a genome produced by a vector according to ~~one of Claims 1 or~~ Claim 8.

10. (Original) The use of a retrovirus according to Claim 9 to trap a gene in a eukaryotic target cell or organism.

11. (Currently amended) The use of a vector according to ~~Claims 1 or~~ Claim 8 to trap a gene in a eukaryotic target cell wherein said vector is introduced into said

target cell by a method drawn from the group consisting of electroporation, viral infection, retrotransposition, microinjection and transfection.

12. (Currently amended) A transgenic cell incorporating a vector according to ~~any one of Claims 1 or~~ Claim 8 into the genome of the cell.

13. (Currently amended) A transgenic non-human animal that has been genetically modified to incorporate a vector according to ~~any one of Claims 1 or~~ Claim 8 into the genome of one or more cells in the animal.

14. (Currently amended) The use of a vector according to ~~any one of Claims 1 or~~ Claim 8 to activate the expression of a naturally occurring gene in a cell.

15. (Original) The use of claim 14 wherein said cell is mammalian.

16. (Original) The use of claim 15 wherein said mammalian cell is a human cell.

17. (Original) The use of a 3' gene trap cassette to alter the expression of a cellularly encoded gene, said 3' gene trap cassette comprising in operable combination:

1) a promoter;

- 2) an exon sequence located 3' from and expressed by said promoter,
said exon not encoding an activity conferring antibiotic resistance;
and
- 3) a splice donor sequence defining the 3' region of said exon

wherein said cassette is non-homologously incorporated into the genome of a eukaryotic target cell and said splice donor sequence of the transcript encoded by said exon is spliced to a splice acceptor sequence of said cellularly encoded gene.

18. (Original) The use of Claim 17 wherein said non-homologously incorporated cassette is present in a retroviral vector that has nonspecifically integrated into the genome of the eukaryotic target cell.

19. (Original) The use of Claim 18 wherein said exon is not encoded by the target cell genome or not normally expressed by the target cell genome.

20. (Original) A process for obtaining novel eucaryotic polynucleotide sequence information comprising:

- a) introducing into a eucaryotic cell a 3' gene trap cassette, comprising in operable combination:
 - 1) a promoter;
 - 2) an exon sequence located 3' from and expressed by said promoter,
said exon not encoding an activity conferring antibiotic resistance;
 - 3) a splice donor sequence defining the 3' region of the exon;

- b) maintaining the cell under conditions allowing the nonspecific or nontargeted integration of the gene trap cassette into the genome of the cell;
- c) obtaining the chimeric transcript resulting from the splicing of said exon from said 3' gene trap cassette to a second exon encoded by the genome of said eucaryotic cell;
- d) reverse transcribing said chimeric transcript *in vitro* to produce a cDNA template; and
- e) determining the polynucleotide sequence of the cDNA from step d.